

SPECIFICATIONS

	700 RM	1050 RM	1400 RM	2200 RM/RMXL	3000 RM
Maximum Load Rating (VA/Watts):	700/450	1050/700	1400/900	2200/1700 (w/5-20P)	3000/2400
Output Voltage (V AC) (nominal @ 60 Hz.):	120	120	120	120	120
Input Frequency & Power (Hz/Watts):	60/510	60/775	60/975	60/1800 (w/5-20P)	60/2500
Backup Time (minutes) @ Half Load/Full Load:	28/12	23/8	26/10	29/13 (expandable: XL model)	23/7 (expandable)
Transfer Time (milliseconds-typical):	2-4	2-4	2-4	2-4	2-4
Recharge Time (hours) (discharge with 50% Load):	2-4	2-4	2-4	3-6*	3-6*
Number of AC Receptacles (NEMA 5-15R): (NEMA 5-20R):	8 0	8 0	8 0	6 (4 XL Model) 0 (2 XL Model)	4 2
AC Line Cord (ft.):	12	12	12	12	12
AC Plug:	NEMA 5-15P	NEMA 5-15P	NEMA 5-15P	NEMA 5-15P** (NEMA 5-20P: XL Model)	NEMA L5-30P
LAN Interface Ports: (DB9, Female):	2	2	2	3	3
Dimensions (HxWxD-inches):	5-1/4x15-3/4x10-1/2	5-1/4x15-3/4x10-1/2	5-1/4x15-3/4x10-1/2	7x14-3/4x17-3/4	7x14-3/4x17-3/4
Front Panel Width (inches):	19	19	19	19	19
Weight (lbs.) with batteries and handles:	32	38-1/5	43-1/2	95-1/2 (104: XL model)	105

* With standard batteries.

** NEMA5-20P included as an option on 2200 RM model.

Spike Protection:

Spike, line-noise and EMI/RFI filtering built in. Spike suppression starts at voltages just above nominal peak line values. Handles up to 480 joules of total surge energy. Suppresses up to 6,000-volt spikes at current levels up to 36,000 amps. Clamping response time: Instantaneous (0 ns). Spike protection in all three modes: Hot to Neutral, Hot to Ground and Neutral to Ground. Full time EMI/RFI noise suppression, with attenuation exceeding 80 dB @ 1 MHz. (700 RM and 1050 RM have attenuation up to 55 dB @ 1 MHz.)

Controls:

Audible alarm during battery operation with reset switch. Self-test switch. Multicolor L.E.D. indicator lights display UPS battery and load status. Resettable circuit breaker. Rackmount with handles. Expandable battery capability with heavy-duty electrical connector on rear of unit (2200 RMXL & 3000 RM only). UL 1778 listed (UPS Systems). Meets Canadian National Standards as certified by UL.

ADDENDUM to Owner's Manuals #93-0307 and #93-1172

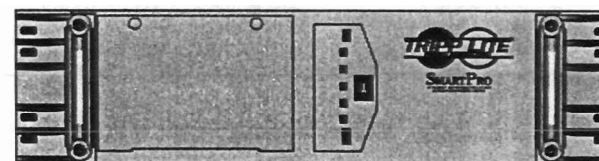
SmartPro® 700 RM
SmartPro® 1050 RM
SmartPro® 1400 RM

SmartPro® 2200 RM
SmartPro® 2200 RMXL*
SmartPro® 3000 RM*

**RACKMOUNT-INTELLIGENT
 LINE-INTERACTIVE UPS SYSTEMS**

**Expandable Battery-Capacity Models*

The SmartPro Rackmount UPS Systems described in this addendum incorporate all the features of the stand-alone SmartPro UPS Systems described in the accompanying Owner's Manual (part #93-0307 and #93-1172) including the information listed in the following pages.

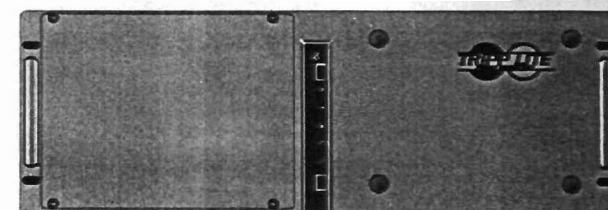


Canadian National
 Standards
 Certified by UL

SNMP



**DO NOT PLUG
 LASER PRINTERS
 INTO 700, 1050 AND
 1400 MODELS
 (USE CAUTION WITH
 STANDARD
 PRINTERS)**



Manufactured under one or more of the following U.S. patents: 4,780,277; 4,778,007; 5,368,981

All models are designed for installation in standard 19-in. equipment racks. All models are network and SNMP Versions 1 & 2 compatible and include network management software on CD ROM and cabling for extensive internetwork communications, including automatic, unattended system shutdown. All models include surge and noise suppression.



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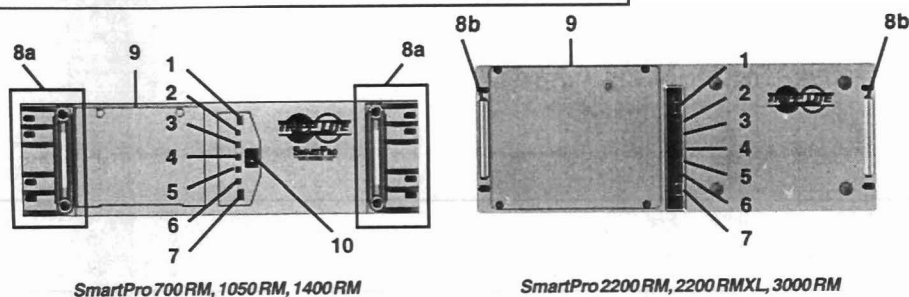
FRONT AND REAR PANEL CONTROLS

The functions of the controls on the SmartPro Rackmount models are identical to the standard SmartPro units, but the locations of the controls are different. Refer to the numbered callouts on the diagrams below for control locations and to the supplied SmartPro Owner's Manual for control descriptions.

FRONT PANEL

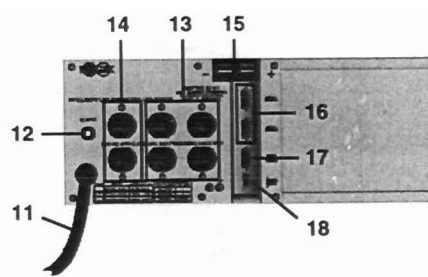
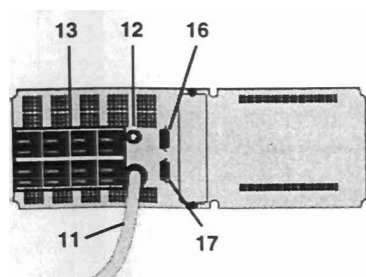
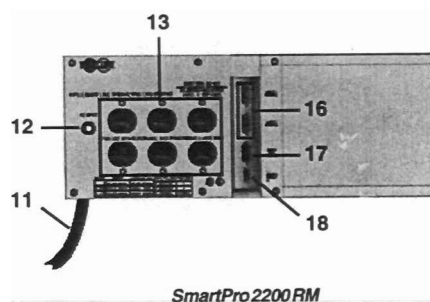
FRONT PANEL FEATURES			
1) Alarm Mute/Self-Test Switch	6) Line On LED		
2) Replace Battery LED	7) On/Standby Switch		
3) Battery Status LED	8a) Rack-Handle/Mounting-Bracket Assembly		
4) UPS Load LED	8b) Rack Handle		
5) Voltage Correction LED	9) Battery Cover Plate		
	10) System-Enable Switch*		

* See #18 on Rear Panel Features for System Enable Switch for SmartPro 2000 and 3000 models



REAR PANEL

REAR PANEL FEATURES	
11) AC Line Cord	
12) Circuit Breaker	
13) 15-amp Outlets	
14) 20-amp Outlets	
15) External Battery Pack Connector	
16) LAN 2.1 Interface Ports	
17) SmartLAN 4.0 Interface Port	
18) System-Enable Switch	



Note: For protection against accidental deactivation, the "System Enable" Switch is deeply recessed.

⚠ WARNING! ⚠

Follow these precautions during disconnection and replacement of the FRONT and REAR BATTERIES:

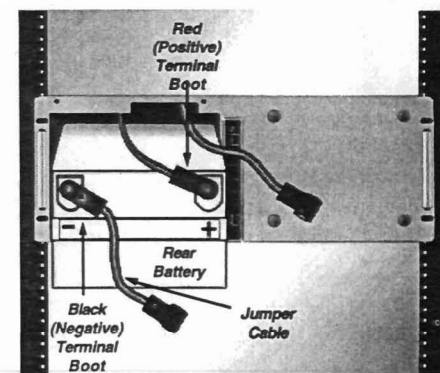
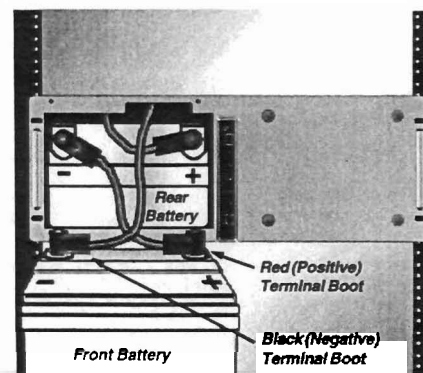
- Make sure the red and black rubber terminal boots completely cover the terminals until the batteries are pulled free from the UPS case.
- Do not attempt to work on the batteries until they are pulled free from the case.
- The exposed battery terminals and ends of the terminal wires should not rest on or touch any part of the UPS case.
- The UPS case is metal, and a short will result, which may cause personal injury and damage to the battery and UPS.

③

Support FRONT BATTERY completely free from UPS case. Do not let battery hang from terminal wires or damage will result. With the battery suspended free from the UPS case, pull back black and red rubber terminal boots. Using wrench, loosen nut and disconnect black (negative) terminal. Then loosen nut and disconnect red (positive) terminal. Set battery aside and dispose of properly.

④

Carefully pull the REAR BATTERY out of the case. Pull back black and red rubber terminal boots. Using wrench, loosen nut and disconnect black (negative) terminal. Then loosen nut and disconnect red (positive) terminal. Set battery aside and dispose of properly. Save the red Jumper Cable for use when connecting replacement batteries.



⑥

Support replacement FRONT BATTERY completely free from metal UPS case. Make sure that the two terminals will face DOWN when the battery is inserted into the UPS case. Using wrench, tighten nut to connect black (negative) terminal, and cover terminal with black rubber terminal boot. Tighten nut to connect red (positive) terminal, and cover terminal with red rubber terminal boot.

⑤

Slide replacement REAR BATTERY halfway into case, making sure that the two terminals are facing UP and that the battery cables lay across the top of the battery. Using wrench, tighten nut to connect black (negative) terminal on end of Jumper Cable, and cover terminal with black rubber terminal boot. Tighten nut to connect red (positive) terminal, and cover terminal with red rubber terminal boot. Slide REAR BATTERY completely into the UPS.

STANDARD BATTERY REPLACEMENT

(UPS AND CONNECTED EQUIPMENT TURNED OFF)

SMARTPRO 2200 RM, 2200 RMXL, 3000 RM

⚠ NOTE!

The SmartPro 2200 RM, 2200 RMXL and 3000 RM contain two batteries, each weighing 30 lbs. Both batteries will need to be supported outside of the UPS during battery replacement. It is recommended that two people perform this procedure.

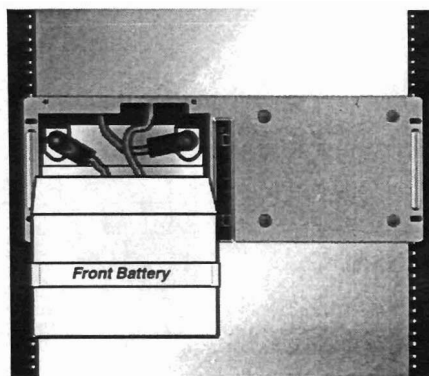
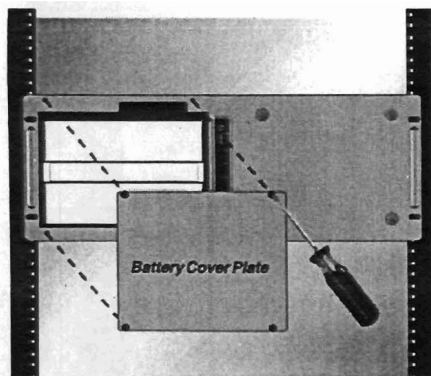


①

Observe all warnings outlined on pages 3 and 7. Using a Phillips-head screwdriver, unscrew and remove Battery Cover Plate located on front panel of UPS.

②

Reach into slot at top of opening and slide out FRONT BATTERY.



⑧

Replace Battery Cover Plate and screws. After replacement batteries are installed, allow them to charge for 12 hours and perform a self-test, as outlined in the accompanying Owner's Manual.

⑦

Slide replacement FRONT BATTERY completely into the UPS.

INSTALLATION

Prior to placement in the equipment rack, attach enclosed handles to front panel of the UPS cabinet. SmartPro 700, 1050 and 1400 models include two combination Rack-Handle / Mounting-Bracket Assemblies (See Feature #8a on Front Panel diagram on page 2). SmartPro 2200, 2200 XL and 3000 models include two Rack Handles (See Feature #8b on Front Panel diagram on page 2.) Simply use the supplied allen-wrench to attach the handles to the front panel with the supplied fasteners. See Figure #1 at right for attachment to SmartPro 2200, 2200 XL and 3000 models.

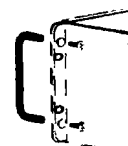


Figure #1

The SmartPro 700 RM, 1050 RM and 1400 RM occupy 3 rack spaces (3U). The SmartPro 2200 RM, 2200 RMXL and 3000 RM occupy 4 rack spaces (4U).

Due to the weight of the unit, the most stable rack position is the lowest position in the rack. SmartPro Rackmount UPS Systems give off very little heat and, when installed in lower-rack positions, will not contribute extra heat to equipment already installed.

The SmartPro 2200 RMXL and 3000 RM feature expandable battery capacity using the Tripp Lite BP 24V33 external battery pack with "daisy-chain" capability to add up to 10 additional battery packs for virtually unlimited backup time. An accessory shelf is available to allow rack installation of the external battery packs (part #BPRM). Installation on the floor behind the rack is the best location for the external batteries, due to their weight and size.

To install the UPS in the equipment rack, position the unit in the desired location and use standard rack screws to secure the UPS in place. Due to the size and weight of the UPS, care must be taken when lifting and securing the unit in the rack.

USER-REPLACEABLE BATTERIES

Under normal conditions, the original battery in the UPS system will last between 3 and 5 years. As the batteries weaken, the UPS will alert you to the need to replace them. The Red "Battery Replace" Indicator Light (See Feature #2 on Front Panel diagram on page 2) will illuminate. This indicates a weak or under-charged battery. When this light illuminates, perform a self-test. (See Feature #1 on Front Panel diagram on page 2.) If the audible alarm sounds during the self-test, allow the UPS to charge its batteries on line for at least 12 hours and then perform a second self-test. If the audible alarm sounds during the second self-test, the batteries will need to be replaced. Replacing the batteries in your SmartPro Rackmount UPS is simple and safe. However, read and observe all precautions listed below before attempting replacement.

⚠ WARNING!

Keep all other persons away from the area when performing battery replacement. The batteries contain lead and acid. Do not dispose of the batteries in a fire. Do not open the batteries. Do not short or bridge the battery terminals with any object. Do not touch the loose battery terminal wires together or to any metal part of the UPS cabinet. Except for the replaceable battery, the UPS contains no other user-serviceable or user-replaceable parts.

⚠ CAUTION!

A battery can present a risk of electrical shock or burn from high short-circuit current. Observe the following precautions while replacing batteries:

- 1) Remove watches, rings and all other metal objects.
- 2) Use tools with insulated handles (Phillips-head screwdriver and adjustable wrench).

⚠ CAUTION! Ⓢ

After removing UPS batteries, proper disposal is required. The batteries are recyclable. Refer to your local codes or call 1-800-SAV-LEAD (1-800-728-5323) for complete recycling information.

⚠ CAUTION!

When replacing batteries, use the same number and type batteries originally installed in your UPS. Call Tripp Lite customer support at (312) 755-5401 for further information on battery replacement.

"HOT-SWAP" BATTERY REPLACEMENT

(UPS AND CONNECTED EQUIPMENT TURNED ON)

Since the UPS battery is isolated from the AC input, you can safely replace the batteries while leaving your UPS and connected equipment on. Follow the same steps outlined in Standard Battery Replacement (pages 4-7), but note the following:

NOTE

During Hot-Swap battery replacement (in the short amount of time AFTER removal of the original batteries and BEFORE the proper installation of the replacement batteries) THE UPS WILL NOT BE ABLE TO PROVIDE UPS BATTERY-BACKUP SUPPORT IN THE EVENT OF A POWER FAILURE because it will not contain a battery. It is recommended that critical equipment that requires battery backup support be connected to a separate UPS or powered-down during Hot-Swap replacement.

STANDARD BATTERY REPLACEMENT

(UPS AND CONNECTED EQUIPMENT TURNED OFF)

SMARTPRO 700 RM, 1050 RM, 1400 RM

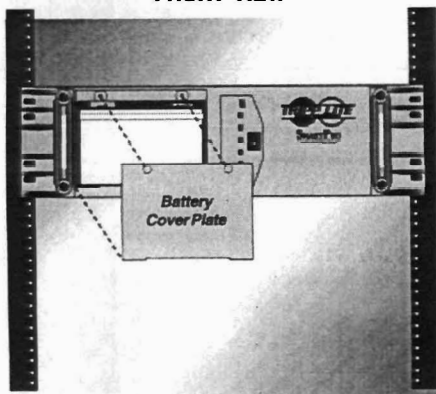
⚠ WARNING!

Do not place metal objects or tools across the top of BATTERY PACK where they may come in contact with both the black (negative) and red (positive) terminals. A short will occur, which may cause personal injury and damage to the UPS and batteries.

1

Observe all warnings outlined on pages 3 and 5. Using a Phillips head screwdriver, remove screws and Battery Cover Plate located on front panel of UPS.

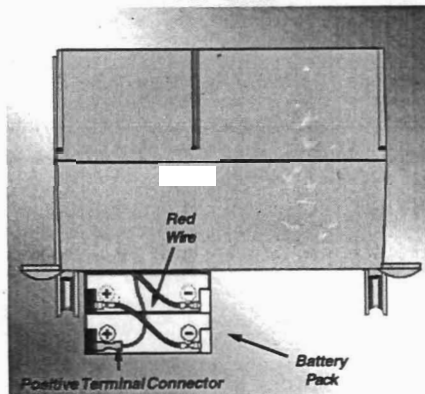
FRONT VIEW



2

Pull tape end located on surface of BATTERY PACK until BATTERY PACK is 2/3 out of UPS case and Positive Terminal Connector (attached to Red Wire) is visible. Pull back connector to disconnect.

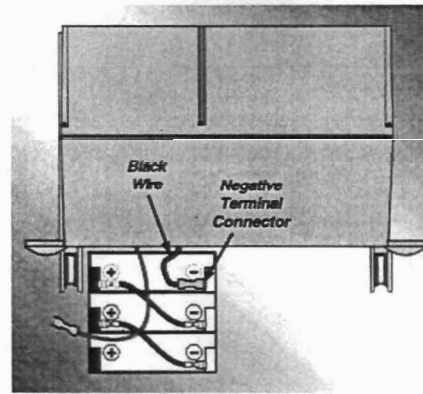
TOP VIEW



3

Pull tape end until BATTERY PACK is completely free from UPS case and Negative Terminal Connector (attached to Black Wire) is visible. Do not let BATTERY PACK hang from terminal wires or damage will result. Pull back connector to disconnect. Dispose of used BATTERY PACK properly.

TOP VIEW



6

Replace Battery Cover Plate and screws. After replacement batteries are installed, allow them to charge for 12 hours and perform a self-test, as outlined in the accompanying Owner's Manual.

5

Push replacement BATTERY PACK far enough into case to allow connection of Red (Positive) Terminal Connector.

4

Support replacement BATTERY PACK completely free from UPS case. While facing the UPS, make sure that the Red (Positive) Terminals are facing UP and are on your LEFT side. Connect Black (Negative) Terminal Connector.